SOLID EDGE
VELOCITY SERIES

Tutorial: ***Front Axle***

Project: ***Roadroller (Synchronous)***

cad / cam / pdm / cae | CAAP®

Solution Partner PLM | SIEMENS

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	DIMENSION UNITS : MM	CLASS (DEPARTMENT) : -	
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MATERIAL : Steel	TITEL :	NUMBER :	REV:	SIZE:
PROJECT: Roadroller	Front Axle	1002	A	A4

1	1. Start **Solid Edge.** 2. Click on **<u>ISO Part.</u>** 	
2	1. Click the **Circle by Center Point** button. 2. Point at the **Origin** and wait until the icon appears before clicking.	
3	3. Click for the diameter.	

4	1. Click the **Select** button. 2. When you hover over the Region, it will turn red. Click on the Region, as shown.	
5	3. When you hover over the arrow, it will turn red. Click on the arrow, as shown. 4. Click the **Extrude – Symmetric** button.	
6	5. Key in the value **42** and confirm with **Enter**.	

7	1. Click the **Smart Dimension** button. 2. Click on the edge of the cilinder. 3. Click to place the dimension.	
8	4. Key in the value **10** and confirm with **Enter**.	
9 +	1. Click the **Hole** button. 2. Click the **Hole Options** button.	

10	Fill in the Hole Options, as shown. 1. Type: **Threaded**; 2. Thread: **M6**; 3. Finite extent: **8**; 4. Extents: **Finite extent**; 5. Hole depth: **10**; 6. V bottom angle: **yes**; 7. Click the **OK** button**.**	
11	1. Hold the cursor on the edge of the cylinder as shown, wait till the icon appears and click. The Hole will centre automatically.	
12	1. Click the **Chamfer Equal Setback** button.	

13	2. Select the edge, as shown. 3. Key in a value for the chamfer (in the case **0,5**) and confirm with **Enter**.	
14	1. Click the **Select** button. 2. Select the Hole in the PathFinder.	
15	3. Click the **Mirror** button.	

16	4. Click on the **Front plane (xz)** at de Base Reference in the PathFinder.	
17	1. Click the **Select** button. 2. Select the Chamfer in the PathFinder.	
18	3. Click the **Mirror** button.	

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4. Click on the **Front plane (xz)** at de Base Reference in the PathFinder.

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Now we set the material property.

1. Click the **Application Button**.
2. Click on **Properties**.
3. Click the **Material Table**.

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1. Choose the material **Steel**.
2. Click **Apply to Model** to set the material to the part.

Hint:

There are several properties which are connected to a material, like color en density. The density is necessary to determine the weight.

22	The part is ready. Now it must be saved. 1. First press **Ctrl** and **i** to turn the image to isometric view. 2. Click on the floppy icon. 3. Go to the **Summary** tab**.** 4. Type *Front Axle* at Title. 5. Go to the **Project** tab and fill in the following properties: Document Number*: 1002*. Revision Number*: A*. Project Name: *Roadroller*. 6. Click **OK** to close the screen. ***Hint:*** *All properties of the part are saved at the **File Properties**. These properties will be used by making a drawing or part list.*	
23	1. Browse to the folder *Roadroller*. 2. Save the document by name *Roadroller-1002-Front Axle-A.par*. 3. Click the **Save** button. 4. Close the file. ***Hint:*** *Save all files of one project in the same folder.*	